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(54) COOLING DEVICE FOR LIQUID-COOLED TYPE ROTARY MACHINE

(57)Abstract:
PURPOSE: To cool a stator core fixed to the inner periphery of a frame by making a cooling liquid flow into a passage formed of an outward-opened recessed section provided on the outer periphery of a frame and a cylindrical member put on the outer periphery of the frame so that the member can cover the recessed section.
CONSTITUTION: In a frame 20, an outward-opened recessed section 20b which becomes a spiral coolant passage 25 is formed by casting in an outer peripheral cylindrical member 20a which covers the outer peripheral part of a stator core 7 with a partition wall 20c in between. When the member 21 is fixed along the outer periphery of the frame 20, the recessed section 20b is covered and the liquid-sealed passage 25 is formed. The surface of the passage 25 is subjected to organic impregnation treatment and ring-like rubber packings 30 are provided at both ends of a putting section between the frame 20 and member 21 so as to secure watertightness. In addition, the easiness in assembling of a cooling device is improved by providing a clearance 31 between the inner peripheral surface of the frame 20 and outer peripheral surface of the core 7 and the cooling ability of the cooling device is improved by enclosing a resin having high thermal conductivity in the clearance 31.